MU 3323

JAZZ HARMONY III

Chord Scales

US Army Element, School of Music
NAB Little Creek, Norfolk, VA 23521-5170
13 Credit Hours
Edition Code 8
Edition Date: March 1988

SUBCOURSE INTRODUCTION

This subcourse will enable you to identify and construct chord scales. This subcourse will also enable you to apply chord scales that correspond to given chord symbols in harmonic progressions.

Unless otherwise stated, the masculine gender of singular is used to refer to both men and women.

Prerequisites for this course include:

- Chapter 2, TC 12-41, Basic Music (Fundamental Notation).
- A knowledge of key signatures.
- A knowledge of intervals.
- A knowledge of chord symbols.
- A knowledge of chord progressions.

NOTE: You can take subcourses MU 1300, Scales and Key Signatures; MU 1305, Intervals and Triads; MU 3320, Jazz Harmony I (Chord Symbols/Extensions); and MU 3322, Jazz Harmony II (Chord Progression) to obtain the prerequisite knowledge to complete this subcourse. You can also read TC 12-42, Harmony to obtain knowledge about traditional chord progression.

TERMINAL LEARNING OBJECTIVES
ACTION: You will identify and write scales and modes, identify and write chord scales that correspond to given chord symbols in a harmonic progression, and identify and write chord scales that correspond to triads, extended chords and altered chords.

CONDITION: Given the information in this subcourse,

STANDARD: To demonstrate competency of this task, you must achieve a minimum of 70% on the subcourse examination.
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**Examination**
ADMINISTRATIVE INSTRUCTIONS

1. Number of lessons in this subcourse: Three.

2. Materials needed to complete this subcourse: This subcourse requires no additional materials for completion.


4. You should listen to the exercises in this subcourse on a keyboard instrument. Relate the sound of the chord scales to the chord.

5. Tasks supported by this subcourse:

   **Soldier's Manual Tasks:**
   - 514-***-3702 Train the Section for Performance in a Non-Marching/Non-Ceremonial Setting
   - 514-***-1733 Perform a Part in a Non-Marching/Non-Ceremonial Setting at a 2.7 Performance Level
   - 514-***-3733 Perform a Part in a Non-Marching/Non-Ceremonial Setting at a 2.8 Performance Level
   - 514-***-4733 Perform a Part in a Non-Marching/Non-Ceremonial Setting at a 2.9 Performance Level
   - 514.455.4502 Train the Ensemble for Performance in a Non-Marching/Non-Ceremonial Setting
   - 514.455.4723 Lead the Stage Band in Performance

   *** 442 – 480 Each stage band instrument

GRADING AND CERTIFICATION INSTRUCTIONS

Examination: This subcourse contains a performance based, multiple-choice and true/false test covering the material contained in the three lessons. After studying the lessons and working through the exercises, complete the examination. Point and click on the small circle to the left of your choice for each question. NOTE: You may select only one choice for each question. We recommend you print out your completed examination before submitting.
This will give you a record of your answers in case you need to resubmit due to problems with the electronic transmission. NOTE: Some older browsers may not support this function. To submit your exam for grading, point and click on SUBMIT. You will receive an interim examination score by electronic mail.

**REMINDER:** You must have received ACCP subcourse enrollment verification by e-mail before taking the examination.
LESSON 1
SCALES AND MODES

LESSON DESCRIPTION:
In this lesson, you will learn to identify and write the scales and modes used in chord symbol/chord scale relationships.

TERMINAL LEARNING OBJECTIVE:
ACTION: At the end of this lesson, you will be able to:
1. Identify scales and modes and
2. Write scales and modes.

CONDITION: Given the information in this lesson.

STANDARD: IAW the information in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publication(s): TC 12-41, Basic Music.

PART A – OVERVIEW

A scale is a set of musical tones ascending or descending in order of pitch according to a specified interval pattern. A mode is a scale of seven different tones (not including the octave) containing half steps and whole steps in a specified pattern. Each mode can be constructed by starting on a different scale step of a Major scale. In this lesson, Major and minor scales are
reviewed first, and then the modes are discussed. Other scales are covered in the last section of this lesson.

**NOTE:** See subcourse MU 1300, *Scales and Key Signatures*, for a detailed study of Major and minor scales.

**PART B – MAJOR AND MINOR SCALES**

1. **Major Scale.** The Major scale uses the following specified pattern of whole and half steps: 1, 1, ½, 1, 1, ½ (Figure 1-1).

![Figure 1-1. Major Scale](image)

**NOTE:** The Major scale is used as a reference for the other scales in this lesson.

2. **Natural Minor Scale.** The natural minor scale uses the following specified pattern of whole and half steps: 1, ½, 1, ½, 1, ½ (Figure 1-2).
a. The natural minor scale can be constructed by starting on the sixth degree of a Major scale (Figure 1-3). It is the relative minor scale of the Major scale. It has no accidentals that contradict the key signature.

b. The natural minor scale can also be constructed by lowering the third, sixth, and seventh scale degrees of its parallel Major scale (Figure 1-4).
**Figure 1-4. Natural Minor Scale/Parallel Major Scale**

*NOTE:* The parallel Major scale has the same tonic note as the minor scale.

3. **Harmonic Minor Scale.** The harmonic minor scale uses the following specified pattern of whole and half steps: 1, ½, 1, ½, 1½, ½ (Figure 1-5).

   ![Figure 1-5. Harmonic Minor Scale](image)

   a. The harmonic minor scale can be constructed by raising the seventh scale degree of a natural minor scale (Figure 1-6).
b. The harmonic minor scale can also be constructed by lowering the third and sixth scale degrees of its parallel Major scale (Figure 1-7).

4. **Melodic Minor Scale (Ascending).** The ascending melodic minor scale uses the following specified pattern of whole and half steps: 1, ½, 1, 1, 1, 1, ½ (Figure 1-8).
**NOTE:** The descending form of the melodic minor scale is the same as the natural minor scale. Whenever the melodic minor scale is mentioned in this subcourse, it refers to the ascending form.

a. The melodic minor scale can be constructed by raising the sixth and seventh scale degrees of a natural minor scale (Figure 1-9).

b. The melodic minor scale can be constructed by lowering the third scale degree of its parallel Major scale (Figure 1-10).
PART C – MODAL SCALES

In this section of the lesson, each mode (or modal scale) is constructed by starting on a different scale degree of a Major scale. The seven modes are presented in the following order: ionian, dorian, phrygian, lydian, mixolydian, aeolian, and locrian. Each modal scale is also compared to the Major scale that starts on the same note as the mode. (You can use either procedure to assist you in constructing modal scales.) The modes can be classified generally as Major or minor. Those modes with a predominantly Major sound are ionian, lydian, and mixolydian. The modal scales with a predominantly minor sound are the dorian, aeolian, and phrygian. The locrian mode tends toward a minor sound.
5. **Ionian Modal (Major Scale).** The ionian mode is identical to the Major scale (Figure 1-13). All other modes can be identified in relation to the Major scale.

![Figure 1-13. Ionian Mode (Major Scale)](image)

**NOTE:** The ionian mode is referred to as the Major scale throughout this subcourse.

6. **Dorian Mode.**
   
a. The dorian mode can be constructed by starting on the second scale degree of a Major scale (Figure 1-14).
NOTE: A mode takes name of its first pitch. The dorian mode in Figure 1-14 is a D dorian mode, not a C Dorian mode.

b. The dorian mode can also be constructed by lowering the third and the seventh degrees of the Major scale that starts on the same note as the mode (Figure 1-15).

7. Phrygian Mode.
a. The phrygian mode can be constructed by starting on the third scale degree of a Major scale (Figure 1-16).

![Figure 1-16. Phrygian Mode/Major Scale Relationship](image)

b. The phrygian mode can also be constructed by lowering the second, third, sixth, and seventh scale degrees of the Major scale that starts on the same note as the mode (Figure 1-17).
8. **Lydian Mode.**

a. The lydian mode can be constructed by starting on the fourth scale degree of a Major Scale (Figure 1-18).

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**Figure 1-17. Phrygian Mode/Altered Major Scale**

**Figure 1-18. Lydian Mode/Major Scale Relationship**
b. The lydian mode can also be constructed by raising the fourth scale degree of the Major scale that starts on the same note as the mode (Figure 1-19).

\[\text{Figure 1-19. Lydian Mode/Altered Major Scale}\]

9. **Mixolydian Mode.**

a. The mixolydian mode can be constructed by starting on the fifth scale degree of a Major scale (Figure 1-20).

\[\text{Figure 1-20. Mixolydian Mode/Major Scale Relationship}\]
b. The mixolydian mode can also be constructed by lowering the seventh scale degree of the Major scale that starts on the same note as the mode (Figure 1-21).

![Figure 1-21. Mixolydian Mode/Altered Major Scale](image)

10. **Aeolian Mode.**

   a. The aeolian mode can be constructed by starting on the sixth scale degree of a Major Scale (Figure 1-22). This mode is identical to the natural minor scale.
b. The aeolian mode can also be constructed by lowering the third, sixth, and seventh scale degrees of the Major scale that starts on the same note as the mode (Figure 1-23).
11. **Locrian Mode.**

   a. The locrian mode can be constructed by starting on the seventh scale degree of a Major scale (Figure 1-24).

   ![Figure 1-24. Locrian Mode/Major Scale Relationship](image)

   b. The locrian mode can also be constructed by lowering every scale degree of the Major scale that starts on the same note as the mode EXCEPT the first and fourth scale degrees (Figure 1-25).
Figure 1-25. Locrian Mode/Altered Major Scale

**SELF REVIEW EXERCISE 3.** (Figure 1-26. Part A and Part B).
[CLICK HERE FOR PRINTABLE VERSION.](#)
[CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.](#)

**SELF REVIEW EXERCISE 4.** (Figure 1-27. Part A and Part B).
[CLICK HERE FOR PRINTABLE VERSION.](#)
[CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.](#)
PART D – OTHER SCALES

12. Whole Tone Scale.

a. The whole tone scale is a six note scale (not including the octave). The notes are separated by whole steps. Because of its whole step nature, there will be a letter name skip in the whole tone scale (Figure 1-28).

![Whole Tone Scale](image)

**Figure 1-28. Whole Tone Scale**

**NOTE:** You can use enharmonics for a note in the whole tone scale (and the other scales listed in Part D) to avoid double flats or double sharps.
b. The whole tone scale can also be constructed by raising the fourth and fifth scale degrees, omitting the sixth scale degree, and lowering the seventh scale degree of the Major scale that starts on the same note as the whole tone scale (Figure 1-29).

Figure 1-29. Whole Tone Scale/Altered Major Scale

13. **Pentatonic Major Scale.** The pentatonic Major scale is a five note scale (not including the octave) that can be constructed by omitting the fourth and seventh scale degrees of a Major scale (Figure 1-30).
14. **Pentatonic Minor Scale.** The pentatonic minor scale is a five note scale (not including the octave) that can be constructed by omitting the second and sixth scale degrees of a natural minor scale (Figure 1-31).

**NOTE:** The pentatonic minor scale has the same pitches as the relative pentatonic Major scale.
15. **Blues Scale.**

a. The blues scale is a six note scale (not including the octave) that can be constructed by adding a half step between the fourth and fifth scale degrees of a pentatonic minor scale (Figure 1-32).

![Blues Scale/Pentatonic Minor Scale Relationship](image)

**Figure 1-32. Blues Scale/Pentatonic Minor Scale Relationship**

b. The blues scale can also be constructed by omitting the second and sixth scale degrees, adding the lowered fifth scale degree, and lowering the third and seventh scale degrees of the Major scale that starts on the same note as the blues scale (Figure 1-33).
NOTE: The lowered third, lowered fifth, and lowered seventh scale degrees of a blues scale are called "blue notes".

16. Bebop Scale (Descending).

a. The bebop scale can be constructed by adding the raised seventh degree to a mixolydian mode (Figure 1-34).
b. The bebop scale can also be constructed by adding the lowered seventh scale degree to a Major scale (Figure 1-35).

![Figure 1-35. Bebop Scale Construction.](image)

*NOTE:* The bebop scale is usually played in descending form only with the lowered seventh coming on the downbeat.

17. **Lydian Seventh Scale.**

  a. The lydian seventh scale can be constructed by lowering the seventh scale degree of a lydian mode (Figure 1-36).
b. The Lydian seventh scale can also be constructed by raising the fourth scale degree and lowering the seventh scale degree of a Major scale (Figure 1-37).

18. **Altered Dominant Scale.**

a. The altered dominant scale can be constructed by starting on the seventh scale degree of the melodic minor scale (Figure 1-38).
NOTE: The altered dominant scale is also called the diminished/whole tone scale, the super locrian scale, and the seventh mode of the melodic minor scale.

b. The altered dominant scale can also be constructed by starting on the seventh scale degree of a Major scale that has a lowered third scale degree (Figure 1-39).
19. **Diminished Scale.**

a. The diminished scale is an eight note scale (not including the octave) that can be constructed by alternating whole steps and half steps, beginning with an ascending whole step (Figure 1-40).

![Diminished Scale](image)

**Figure 1-40. Diminished Scale**

b. The diminished scale can also be constructed by lowering the third scale degree, raising the fifth scale degree, and adding the raised fourth scale degree of the Major scale that starts on the same note as the diminished scale (Figure 1-41).
20. “9” Diminished Scale.

a. The “9” diminished scale is identical in structure to the diminished scale. However, the scale starts on the “9” of the scale root name. A C “9” diminished scale starts on D♭ (Figure 1-42).
b. You can also build the “♯9” diminished scale on the root name by beginning with the half
step followed by the whole step (Figure 1-43).

![C “♯9” Diminished Scale](image)

Figure 1-43. “♯9” Diminished Scale Beginning on Half Step

**NOTE:** You can spell the “♯9” diminished scale either way. For this subcourse, spell the “♯9”
diminished scale by starting on the root note name (See paragraph 20b).

**SELF REVIEW EXERCISE 5.** (Figure 1-44. Part A, Part B, and Part C).

[CLICK HERE FOR PRINTABLE VERSION.]
[CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.]

**SELF REVIEW EXERCISE 6.** (Figure 1-45. Part A, Part B, and Part C).

[CLICK HERE FOR PRINTABLE VERSION.]
[CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.]

[CLICK HERE FOR THE PRACTICAL EXERCISE.]
[CLICK HERE FOR THE ANSWERS TO THE PRACTICAL EXERCISE.]

[CLICK HERE TO PROCEED TO THE NEXT SECTION.]  
[CLICK HERE TO RETURN TO THE TABLE OF CONTENTS.]
LESSON 1
PRACTICAL EXERCISE

The following items will test your understanding of the material covered in this lesson. There is only one correct answer for each item. When you have completed the exercise, check your answers with the answer key. If you answer any item incorrectly, review that part of the lesson that contains the portion involved.

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

1. The mode created by starting on the third degree of a Major scale is the __________.
   A. Dorian mode.
   B. Mixolydian mode.
   C. Phrygian mode.
   D. Aeolian mode.

2. The ionian mode is also known as the natural minor scale.
   A. True
   B. False

3. Raising the fourth degree of a Major scale creates a/an __________.
   A. Mixolydian mode.
   B. Aeolian mode.
   C. Dorian mode.
   D. Lydian mode.

4. Lowering the third degree of a Major scale creates a/an __________.
A. Melodic minor scale.
B. Harmonic minor scale.
C. Aeolian mode.
D. None of the above is correct.

5. The scale created by omitting the second and sixth degrees of a natural minor scale is the ________.
   A. Blues scale.
   B. Pentatonic minor scale.
   C. Pentatonic Major scale.
   D. Whole tone scale.

Figure 1. Question 6

6. Which of the following scales is shown in Figure 1?
   A. Blues scale
   B. Pentatonic minor scale
   C. Pentatonic Major scale
   D. Whole tone scale

7. The mode created by starting on the fourth degree of a Major scale is the ________.
   A. Phrygian mode.
   B. Lydian mode.
   C. Mixolydian mode.
   D. Ionian mode.
8. Lowering the third seventh degrees of a Major scale creates a/an _________.

A. Natural minor scale.
B. Aeolian mode.
C. Dorian mode.
D. Both A and B are correct.

![Figure 2. Question 9](image)

9. Which of the following scales is shown in Figure 2?

A. F diminished scale
B. F “9” diminished scale
C. F altered dominant scale
D. None of the above is correct.

![Figure 3. Question 10](image)
10. Which group of notes in Figure 3 is the A♭ blues scale?

A. (a)  
B. (b)  
C. (c)  
D. (d)

11. The scale created by separating each note by one whole step is the whole tone scale.

A. True  
B. False

12. The mode or scale created by raising the seventh degree of the aeolian mode is the __________.

A. Melodic minor scale.  
B. Harmonic minor scale.  
C. Phrygian mode.  
D. Lydian mode.

13. The mode or scale created by starting on the seventh degree of the Major scale is the __________.

A. Bebop scale.  
B. Locrian mode.  
C. Lydian mode.  
D. None of the above is correct.
14. Which scale in Figure 4 is an example of a lydian seventh scale?
   A. (a)  
   B. (b)  
   C. (c)  
   D. (d)

15. Which scale in Figure 4 is an example of a whole tone scale?
   A. (a)  
   B. (b)  
   C. (c)  
   D. (d)

16. Which scale in Figure 4 is an example of a diminished scale?
   A. (a)  
   B. (b)  
   C. (c)  
   D. (d)

17. Which scale in Figure 4 is an example of an altered dominant scale?

Figure 4. Question 14, 15, 16, and 17.
18. The "Ⅸ" diminished scale (when it begins on the scale root name) alternates half steps and whole steps and starts with an ascending half step.

A. True
B. False

19. Which of the following statements identifies a bebop scale?

A. A descending Major scale with a lowered seventh degree added.
B. A descending mixolydian mode with a half step added between the seventh and eighth scale degrees.
C. Both A and B are correct.
D. Neither A nor B is correct.

20. The altered dominant scale can be constructed by starting on the sixth degree of a Major scale that has a lowered third degree.

A. True
B. False
LESSON 1
PRACTICAL EXERCISE
ANSWER KEY AND FEEDBACK

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<table>
<thead>
<tr>
<th>Item</th>
<th>Correct Answer and Feedback</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>C Phrygian mode.</td>
</tr>
<tr>
<td></td>
<td>(Part C, Paragraph 7a)</td>
</tr>
<tr>
<td>2.</td>
<td>B False</td>
</tr>
<tr>
<td></td>
<td>(Part C, Paragraph 5, NOTE)</td>
</tr>
<tr>
<td>3.</td>
<td>D Lydian mode.</td>
</tr>
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<td></td>
<td>(Part C, Paragraph 8b)</td>
</tr>
<tr>
<td>4.</td>
<td>A Melodic minor scale.</td>
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<td></td>
<td>(Part B, Paragraph 4b)</td>
</tr>
<tr>
<td>5.</td>
<td>B Pentatonic minor scale.</td>
</tr>
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<td></td>
<td>(Part D, Paragraph 14)</td>
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<tr>
<td>6.</td>
<td>C Pentatonic Major scale</td>
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<td></td>
<td>(Part D, Paragraph 13)</td>
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<tr>
<td>7.</td>
<td>B Lydian mode.</td>
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<td></td>
<td>(Part C, Paragraph 8a)</td>
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<tr>
<td>8.</td>
<td>C Dorian mode.</td>
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<td></td>
<td>(Part C, Paragraph 6b)</td>
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<tr>
<td>9.</td>
<td>A F diminished scale</td>
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<td></td>
<td>(Part D, Paragraphs 19a &amp; b)</td>
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<tr>
<td>10.</td>
<td>C (c)</td>
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<tr>
<td></td>
<td>(Part D, Paragraph 15a &amp; b)</td>
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</tbody>
</table>
|11. | A | True  
(Part D, Paragraph 12a) |
(Part B, Paragraph 3a; Part C, Paragraph 10a) |
|13. | B | Locrian mode.  
(Part C, Paragraph 11a) |
|14. | D | (d)  
(Part D, Paragraphs 17a & b) |
|15. | A | (a)  
(Part D, Paragraphs 12a & b) |
|16. | C | (c)  
(Part D, Paragraphs 19a & b) |
|17. | B | (b)  
(Part D, Paragraphs 18a & b) |
|18. | A | True  
(Part D, Paragraph 20b) |
|19. | C | Both A and B are correct.  
(Part D, Paragraphs 16a & b) |
|20. | B | False  
(Part D, Paragraph 18b) |
SELF REVIEW EXERCISE 1. Write the following scales. Do not use key signatures. The first one has been done for you (Figure 1-11).

CLICK HERE FOR THE ANSWERS TO THIS LESSON.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-11. Write Scales
LESSON 1
SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 1.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-11. Write Scales
SELF REVIEW EXERCISE 2. Write the name of the scale in the space provided. The first one has been done for you (Figure 1-12).

CLICK HERE FOR THE ANSWERS TO THIS LESSON.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-12. Identify Scales

G natural minor

...
Lesson 1
Self Review Exercise Answers

Self Review Exercise 2.
Click here to proceed to the next section.

Figure 1-12. Identify Scales
LESSON 1
SELF REVIEW EXERCISE

**SELF REVIEW EXERCISE 3.** Write the following modes. Do not use key signatures. The first one has been done for you (Figure 1-26. Part A and Part B).

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE,
CLICK HERE TO PROCEED TO THE NEXT SECTION.

![Figure 1-26. Part A. Write Modes](image-url)
Figure 1-26. Part B. Write Modes
LESSON 1

SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 3. (Figure 1-26. Part A and Part B)

CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-26. Part A. Write Modes
Figure 1-26. Part B. Write Modes
LESSON 1
SELF REVIEW EXERCISE

SELF REVIEW EXERCISE 4. Write the name of the mode in the space provided. The first one has been done for you (Figure 1-27. Part A and Part B).

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-27. Part A. Identify Modes
Figure 1-27. Part B. Identify Modes
LESSON 1
SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 4. (Figure 1-27. Part A and Part B).
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-27. Part A. Identify Modes
Figure 1-27. Part B. Identify Modes
SELF REVIEW EXERCISE 5. Write the following scales. Do not use key signatures. The first one has been done for you (Figure 1-44. Part A, Part B, and Part C).

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-44. Part A. Write Scales
Figure 1-44. Part B. Write Scales
A "\textsuperscript{1/9}" diminished  B lydian seventh

G diminished  B\textsuperscript{-}bebop

D\textsuperscript{-}lydian seventh  E altered dominant

B blues  F\textsuperscript{#} whole tone

D pentatonic minor  E pentatonic major

C\# "\textsuperscript{1/9}" diminished  G altered dominant

Figure 1-44. Part C. Write Scales
LESSON 1
SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 5. (Figure 1-44. Part A, Part B, and Part C).

CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-44. Part A. Write Scales
Figure 1-44. Part B. Write Scales
Figure 1-44. Part C. Write Scales
SELF REVIEW EXERCISE 6. Write the name of the scale in the space provided. The first one has been done for you (Figure 1-45. Part A, Part B, and Part C).

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1-45. Part A. Identify Scales
Figure 1-45. Part B. Identify Scales
Figure 1-45. Part C. Identify Scales
LESSON 1
SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 6. (Figure 1-45. Part A, Part B, and Part C).

CLICK HERE TO PROCEED TO THE NEXT SECTION.

![Figure 1-45. Part A. Identify Scales](image-url)
Figure 1-45. Part B. Identify Scales
Figure 1-45. Part C. Identify Scales
LESSON 2
RELATING CHORD SCALES TO CHORDS

OVERVIEW

LESSON DESCRIPTION:
In this lesson, you will learn to identify and write chord scales that correspond to given chord symbols in a harmonic progression.

TERMINAL LEARNING OBJECTIVE:
ACTION: You will:

1. Identify chord scales used in conjunction with chord symbols in harmonic progressions and
2. Write chord scales used in conjunction with chord symbols in harmonic progressions.

CONDITION: Given the information in this lesson.

STANDARDS: IAW the information in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publication: TC 12-41, Basic Music.

INTRODUCTION
Major or minor scales, modes, or any of the scales listed in Part D of Lesson 1 are called chord scales when they are used in conjunction with chords in a harmonic progression. Chord symbols indicate the vertical or harmonic framework of a piece. Chord scales allow for horizontal or melodic application of the underlying harmonic progression. A given chord symbol normally implies use of a particular chord scale.

NOTE: In the examples of scales in this lesson, whole notes are used to represent chord tones. Blackened note-heads are used to represent non-chord tones.

00000001. Major Sixth and Major Seventh Chords.

a. Chord Scale for Tonic Major Sixth (I6) and Major Seventh (IMaj7) Chords. Use the Major scale as the chord scale for Major sixth and Major seventh chords that function as a tonic chord in a chord progression (Figure 2-1).

![Figure 2-1. Chord Scale for Major Sixth and Major Seventh Chords](image)

NOTE: When a dominant seventh chord is followed by a Major or minor chord either a perfect fifth lower or a minor second lower in root movement, that Major or minor chord has tonic function (Figure 2-2).
The fourth scale degree of the Major scale is dissonant to a Major chord and exhibits a strong tendency to resolve to the third. If the Major seventh of the chord is present, the first (or eighth) scale degree is relatively dissonant and tends to resolve to the seventh. The other scale degrees (2, 3, 5, 6, and 7) are consonant.

b. **Chord Scale for Non-Tonic Major Sixth and Major Seventh Chords.** Use the lydian mode for Major sixth and Major seventh chords that are not functioning as a tonic chord in a chord progression (Figure 2-3).

The raised fourth scale degree of the lydian mode eliminates the problem of the Major scale's dissonant fourth. The raised fourth can be emphasized without resolution. The first (or eighth) scale degree can be dissonant when the Major seventh is present in the harmony. It tends to resolve down to the seventh scale degree. All other scale degrees are
consonant notes with Major harmonies.

**NOTE:** The lydian mode can be used as an alternate chord scale for tonic Major sixth and Major seventh chords. The Major scale can be used as an alternate chord scale for non-tonic Major sixth and Major seventh chords.

c. **Pentatonic Major Chord Scale.** The pentatonic Major scale can be used for either tonic or non-tonic Major sixth and Major seventh chords (Figure 2-4).

![Figure 2-4. Pentatonic Major Chord Scale](image)

All notes in the scale are consonant with unaltered Major harmonies.

2. **Minor Sixth (i min6) and Minor/Major Seventh (i min/Maj7) Chords.** Use the ascending melodic minor scale as the scale for minor sixth and minor/Major seventh chords (Figure 2-5).

![Figure 2-5. Chord Scale for Minor Sixth and Minor/Major Seventh Chords](image)
Any scale degree of the ascending melodic minor scale can be emphasized without fear of a "disagreeable" dissonance occurring. The first (or eighth) scale degree can have a tendency to resolve downward to the raised seventh scale degree.

3. **Minor Seventh Chords.** You can use several chord scales for minor seventh chords. Which chord scale you use depends upon the function of the minor seventh chord.

   a. **Supertonic Minor Seventh (ii min7) Chords.** Use the dorian mode as the chord scale for minor seventh chords that have a supertonic (ii) function in a chord progression (Figure 2-6).

   

   ![Figure 2-6. Chord Scale for Supertonic Minor Seventh Chords](image)

   The dorian mode has no notes which are "unacceptably" dissonant to the minor seventh harmony.

   b. **Submediant Minor Seventh (vi min7) Chords.** Use the aeolian mode (natural minor scale) as the chord scale for minor seventh chords that have a submediant (vi) function in a chord progression (Figure 2-7).
The sixth scale degree of the aeolian mode is dissonant to a minor seventh chord. It has the tendency to resolve downward to the fifth scale degree.

c. **Mediant Minor Seventh (iii min7) Chords.** Use the phrygian mode as the chord scale for minor seventh chords that have a mediant (iii) function in a chord progression (Figure 2-8).

The second and sixth scale degrees of the phrygian mode are dissonant and have the tendency to resolve downward to the first and fifth scale degrees.

d. **Pentatonic Minor Chord Scale.** The pentatonic minor scale can be used for all minor seventh chords (Figure 2-9).
There are no dissonant notes in the pentatonic minor chord scale.

**NOTE:** The dorian mode sounds acceptable with all minor seventh chords. It is most commonly used for supertonic minor seventh chords, but it is also frequently used for mediant and submediant minor seventh chords. This is not because the dorian mode sounds better than the other chord scales, but because it eliminates analyzing the progression to determine the function of the minor seventh chord.

4. **Minor Seventh (Flat Five) Chords.** Use the locrian mode as the chord scale for minor seventh ($\flat 5$) chords (Figure 2-10).

The second scale degree is dissonant to a minor seventh (flat five) chord. It has the tendency to resolve downward to the root of the chord.
NOTE: You can also use the diminished scale as a chord scale for a ii min7(5) going to a V7(9).

5. **Dominant Seventh Chords.** You can use several chord scales for the dominant seventh (V7) chord. Determining which chord scale to use is a matter of musical taste, the style of the music, and the composition of the chord (plain, extended, or altered).

   a. **Mixolydian Mode.** The mixolydian mode is the chord scale used most often with the plain, unaltered dominant seventh chord (Figure 2-11).

   ![Figure 2-11. Mixolydian Mode](image)

   The fourth scale degree of the mixolydian mode is dissonant to the dominant seventh chord and has a strong tendency to resolve downward to the third of the chord. All other scale degrees are consonant in relation to plain, unaltered dominant seventh harmonies.

   b. **Lydian Seventh Scale.** You can use the lydian seventh chord scale when the dominant seventh chord does not resolve up a perfect fourth or down a perfect fifth (root movement). This chord scale is more colorful than the mixolydian mode. (It sounds more “jazzy.”) The lydian seventh scale is usually used in bebop music instead of the mixolydian mode (Figure 2-12).
Any note of the lydian seventh chord scale can be emphasized without sounding "wrong." The raised fourth scale degree eliminates the dissonant sounding fourth of the mixolydian mode.

c. **The “9” Diminished Scale.** You can use the “9” diminished scale instead of the mixolydian mode when the dominant seventh chord resolves up a perfect fourth or down a perfect fifth. This chord scale implies a “9” when no 9 is present in the harmony. It should always be used when dominant seventh chord resolves to a tonic minor up a perfect fourth or down a perfect fifth (Figure 2-13).

![Figure 2-12. Lydian Seventh Scale](image)

NOTE: The chord symbol for a dominant seventh chord in minor is usually notated as V7(b9). (See Figure 2-10)

d. **Blues Scale.** You can use the blues scale instead of the mixolydian mode to give a "bluesy" effect to the dominant seventh chord (Figure 2-14).
When the blues scale is used with a dominant chord, the third scale degree of the blues scale is dissonant. The second scale tone (lowered third) and the fourth scale degree (lowered fifth) tend to give the “bluesy” effect in relation to the dominant harmony present in the chord progression.

e. **Bebop Scale (Descending).** You can use the bebop scale (descending) instead of the mixolydian mode at any time. The bebop scale creates a stronger than normal dominant sound by adding a half step between the tonic and lowered seventh so that the lowered seventh occurs on the downbeat (Figure 2-15).

The bebop scale is identical to the mixolydian mode with the addition of a chromatic passing tone between the tonic and the lowered seventh. The effect of the bebop scale is lost if the lowered seventh is not on a downbeat.
NOTE: The pentatonic Major scale does not include Major scale step four, the seventh of the dominant seventh. Therefore, the pentatonic Major scale does not create a strong dominant seventh sound. Because of this, the pentatonic Major scale can be, but is not often, used as the chord scale for a dominant seventh chord. There are no notes in the scale that “clash” with the dominant seventh harmony (Figure 2-16).

Figure 2-16. Pentatonic Major Scale

6. **Diminished Seventh Chords.** Use the diminished scale as the chord scale for diminished seventh chords (Figure 2-17).

Figure 2-17. Chord Scale for Diminished Seventh Chords

Any scale degree of the diminished scale will sound acceptable with a diminished seventh chord and can be emphasized.

7. **Augmented Seventh Chords.**
a. **Whole Tone Scale.** You can use the whole tone scale as the chord scale for augmented seventh chords (Figure 2-18).

![Figure 2-18. Whole Tone Scale](image)

No scale degrees of the whole tone scale “clash” with the augmented seventh chord.

**NOTE:** The augmented seventh chord is a dominant seventh chord with a raised fifth (Figure 2-19).

![Figure 2-19. Dominant Seventh/Augmented Seventh Relationship](image)
b. **Altered Dominant Scale.** You can also use the altered dominant scale as the chord scale for augmented seventh chords (Figure 2-20).

![Figure 2-20. Altered Dominant Scale](image)

**NOTE:** The altered dominant scale implies other alterations. This will be discussed in Lesson 3.

**SELF REVIEW EXERCISE 1.**
- [CLICK HERE TO PROCEED TO THIS EXERCISE.](#)
- [CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.](#)

**SELF REVIEW EXERCISE 2.**
- [CLICK HERE TO PROCEED TO THIS EXERCISE.](#)
- [CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.](#)

**SELF REVIEW EXERCISE 3.**
- [CLICK HERE TO PROCEED TO THIS EXERCISE.](#)
- [CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.](#)

[CLICK HERE TO PROCEED TO THE PRACTICAL EXERCISE.](#)
[CLICK HERE TO PROCEED TO THE PRACTICAL EXERCISE ANSWERS.](#)
The following items will test your understanding of the material covered in this lesson. There is only one correct answer for each item. When you have completed the exercise, check your answers with the answer key. If you answer any item incorrectly, review that part of the lesson that contains the portion involved.

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

Figure 1. Question 1

1. Which chord scale should you use for the second chord in Figure 1?
   A. D “9” diminished scale
   B. D whole tone scale
   C. D pentatonic Major chord scale
   D. D diminished scale

2. Which two chord scales can be used for all minor seventh chords?
   A. Dorian mode, phrygian mode
   B. Aeolian mode, phrygian mode
   C. Aeolian mode, pentatonic minor chord scale
   D. Dorian mode, pentatonic minor chord scale
3. When played for a dominant seventh chord, any note of the lydian seventh chord scale can be emphasized without the note sounding wrong.

A. True
B. False

4. The harmonic minor scale should be used as the chord scale for all minor sixth and minor/Major seventh chords.

A. True
B. False

5. When using the Major scale as the chord scale for a tonic Major seventh chord, what two scale degrees are dissonant to the harmony?

A. 1, 5
B. 2, 6
C. 1, 4
D. 4, 7

6. Which chord scale should be used for the first chord in Figure 2?

A. Dorian mode
B. Melodic minor scale
C. Locrian mode
D. None of the above is correct.

7. Which chord scale should be used for the second chord in Figure 2?
   A. Major scale
   B. Lydian mode
   C. Lydian seventh scale
   D. None of the above is correct.

8. Which chord scale should be used for the last chord in Figure 2?
   A. Bebop scale
   B. Major scale
   C. Lydian seventh scale
   D. None of the above is correct.

9. Which of the following chord scales should be used for the first chord in Figure 3?
   A. Lydian mode
   B. Pentatonic minor chord scale
   C. Mixolydian mode
   D. Lydian seventh scale
10. Which of the following chord scales should NOT be used for the second chord in Figure 4?

A. C mixolydian mode  
B. C diminished scale  
C. C blues scale  
D. Lydian seventh scale

11. The whole tone scale and the altered dominant scale are both possible chord scales for the augmented seventh chord.

A. True  
B. False

12. Both the blues scale and the Lydian seventh scale are more colorful than the mixolydian mode when used as a chord scale for a dominant seventh chord.

A. True  
B. False
13. Which two chords of Figure 5 use the same chord scale?
   A. Bmin6 and G♯min7(♭5)
   B. C♯min7(♭5) and Bmin(Maj7)
   C. Bmin6 and Bmin(Maj7)
   D. None of the above is correct.

14. Which chord scale should be used for the third chord in Figure 5?
   A. C♯ diminished scale
   B. C ♯9 diminished scale
   C. C♯ melodic minor scale
   D. C♯ locrian mode

15. Which chord scale should be used for the fourth chord in Figure 5?
   A. F♯9 diminished scale
   B. F♯ lydian mode
   C. F♯ diminished scale
   D. F♯ pentatonic Major chord scale

16. Which of the following chord scales has a second and sixth scale degree dissonant to the minor seventh chords?
   A. Dorian mode
   B. Pentatonic minor chord scale
   C. Aeolian mode
   D. Phrygian mode
17. Which chord scale should you use for the first chord in Figure 6?

A. Dorian mode  
B. Phrygian mode  
C. Aeolian mode  
D. Both A and B are correct.

18. Which of the following determines what chord scale to use for a dominant seventh chord?

A. The composition of a chord (plain, extended, or altered)  
B. Style of music  
C. Musical taste  
D. All of the above is correct.

19. In the key of g minor, you should use a locrian mode or a diminished scale as the chord scale for an Amin7(5) chord that progresses to a D7(9).

A. True  
B. False
20. Which chord scale would give the strongest dominant seventh sound for the second chord in Figure 7?

A. D mixolydian mode
B. D pentatonic Major chord scale
C. D blues scale
D. D bebop scale
LESSON 2
PRACTICAL EXERCISE
ANSWER KEY AND FEEDBACK

CLICK HERE TO PROCEED TO THE NEXT SECTION.

<table>
<thead>
<tr>
<th>Item</th>
<th>Correct Answer and Feedback</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>000000000B D whole tone scale (Paragraph 7a)</td>
</tr>
<tr>
<td>2.</td>
<td>D Dorian mode, pentatonic minor chord scale (Paragraphs 3d &amp; 3d NOTE)</td>
</tr>
<tr>
<td>3.</td>
<td>A True (Paragraph 5b)</td>
</tr>
<tr>
<td>4.</td>
<td>B False (Paragraph 2)</td>
</tr>
<tr>
<td>5.</td>
<td>C 1, 4 (Paragraph 1a)</td>
</tr>
<tr>
<td>6.</td>
<td>A Dorian mode (Paragraph 3a)</td>
</tr>
<tr>
<td>7.</td>
<td>C Lydian seventh scale (Paragraph 5b)</td>
</tr>
<tr>
<td>8.</td>
<td>B Major scale (Paragraph 1a)</td>
</tr>
<tr>
<td>9.</td>
<td>A Lydian mode (Paragraph 1b)</td>
</tr>
<tr>
<td>10.</td>
<td>B C diminished scale (Paragraphs 5a, 5b, 5c, 5d, &amp; 5e)</td>
</tr>
</tbody>
</table>
11. A True  
   (Paragraphs 7a & 7b)

12. A True  
   (Paragraphs 5b & 5d)

13. C Bmin6 and Bmin(Maj7)  
   (Paragraph 2)

14. D C# locrian mode  
   (Paragraph 4)

15. A F# “i9” diminished scale  
   (Paragraphs 5c & 5c NOTE)

16. D Phrygian mode  
   (Paragraph 3c)

17. A Dorian mode  
   (Paragraph 3a)

18. D All of the above is correct.  
   (Paragraph 5)

19. A True  
   (Paragraph 4 NOTE)

20. D D bebop scale  
   (Paragraph 5e)
SELF REVIEW EXERCISE 1. Identify all chord scales that correspond to the following chord symbols. The first one has been done for you. (Figure 2-21)

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

a. C7
   - C Mixolydian Mode
   - C Lydian Seventh Scale
   - C “9” Diminished Scale
   - C Blues Scale
   - C Bebop Scale

b. F♯6
   ______________________
   ______________________
   ______________________
   ______________________
   ______________________

c. Bmin7
   vi

   ______________________
   ______________________
   ______________________
   ______________________

  [If iimin7(5) goes to V7(9)]

d. F♯min7(5)
   ii

   ______________________
   ______________________
   ______________________
   ______________________
   ______________________

e. D7
   ______________________
   ______________________
   ______________________
   ______________________
   ______________________
f. G Maj7

g. Dmin6

h. Cmin7 ii

i. BMaj7 I

j. Gmin6

k. Gmin(Maj7)

l. Emin7(5)

m. Emin7 vi

n. Adim7

o. Fmin7 iii

p. Dmin7 ii

q. F♯Aug7
Figure 2-21. Identify Chord Scales
SELF REVIEW EXERCISE 1. (Figure 2-21)
CLICK HERE TO PROCEED TO THE NEXT SECTION.

a. C7
   C Mixolydian Mode
   C Lydian Seventh Scale
   C “9” Diminished Scale
   C Blues Scale
   C Bebop Scale

b. F#6
   F# Major Scale
   F# Lydian Mode
   F# Pentatonic Major Scale

c. Bmin7
   vi
   B Aeolian Mode
   B Dorian Mode
   B Pentatonic Minor Scale

d. F#min7(5)
   ii
   F# Locrian Mode
   F# Diminished Scale
   [If iimin7(5) goes to V7(9)]

e. D7
   D Mixolydian Mode
   D Lydian Seventh Scale
   D “9” Diminished Scale
   D Blues Scale
   D Bebop Scale

f. G Maj7
   G Major Scale
g. Dmin6

h. Cmin7

G\textsuperscript{#} Lydian Mode
G\textsuperscript{#} Pentatonic Major Scale

D Melodic Minor Scale

C Dorian Mode
C Pentatonic Minor Scale
<table>
<thead>
<tr>
<th></th>
<th>Chord</th>
<th>Scale</th>
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<tr>
<td>i.</td>
<td>BMaj7</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B Major Scale</td>
</tr>
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<td></td>
<td></td>
<td>B Lydian Mode</td>
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<td></td>
<td>B Pentatonic Major Scale</td>
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<tr>
<td>j.</td>
<td>Gmin6</td>
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<td></td>
<td>G Melodic Minor Scale</td>
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<td>k.</td>
<td>Gmin(Maj7)</td>
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<td></td>
<td></td>
<td>G Melodic Minor Scale</td>
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<td>l.</td>
<td>Emin7(5)</td>
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<td>m.</td>
<td>Emin7</td>
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<td>E Aeolian Mode</td>
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<td>E Dorian Mode</td>
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<td>E Pentatonic Minor Scale</td>
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<td>n.</td>
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<td>o.</td>
<td>Fmin7</td>
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<td>p.</td>
<td>Dmin7</td>
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<td>D Dorian Mode</td>
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<tr>
<td>q.</td>
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<td>F# Whole Tone Scale</td>
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<td>F# Altered Dominant Scale</td>
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<td>r.</td>
<td>A#Maj7</td>
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<td>A# Major Scale</td>
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<tr>
<td></td>
<td></td>
<td>A# Pentatonic Major Scale</td>
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</table>

**Figure 2-21. Identify Chord Scales**
SELF REVIEW EXERCISE 2. Write the chord scale and chord symbol for each of the following chord progressions in the key given by the key signature. Use the scale that best defines the chord function unless a specific chord scale is indicated (Figure 2-22. Part A and Part B).

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

a.

Figure 2-22. Part A. Write Chord Scales and Symbols

b.
Figure 2-22. Part B. Write Chord Scales and Symbols
LESSON 2
SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 2. (Figure 2-22. Part A and Part B)
CLICK HERE TO PROCEED TO THE NEXT SECTION.

a.

Figure 2-22. Part A. Write Chord Scales and Symbols
Figure 2-22. Part B. Write Chord Scales and Symbols
SELF REVIEW EXERCISE 3. Write the chord scales for the following chord progressions (Figure 2-23. Parts A, B, C, D, and E). Unless otherwise indicated, use the mixolydian mode for unaltered dominant seventh chords.

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO PROCEED TO THE NEXT SECTION.

a.

Figure 2-23. Part A. Write Chord Scales for Progressions
b.

\[
\begin{align*}
&\text{A min}^7(\flat 5) & \text{D}^7(\flat 9) \\
&\text{G min}^7 & \text{C}^7 & \text{B Maj}^7 \\
&\text{C min}^7(\flat 5) & \text{F}^7(\flat 9) \\
&\text{B}^\flat \text{ Maj}^7 & \text{B min}^7 & \text{E}^7 \\
&\text{A Maj}^7 & \text{F}^\# \text{ min}^7 \\
&\text{E}^\flat \text{ min}^7(\flat 5) & \text{A}^\flat \text{ D}^7(\flat 9) & \text{D}^\flat \text{ Maj}^7 \\
&\text{C Aug}^7 & \text{B Aug}^7 & \text{E Maj}^7
\end{align*}
\]

Figure 2-23. Part B. Write Chord Scales for Progressions
Figure 2-23. Part C. Write Chord Scales for Progressions
Figure 2-23. Part D. Write Chord Scales for Progressions
Figure 2-23. Part E. Write Chord Scales for Progressions
LESSON 2
SELF REVIEW EXERCISE ANSWERS

SELF REVIEW EXERCISE 3. (Figure 2-23. Parts A, B, C, D, and E)

CLICK HERE TO PROCEED TO THE NEXT SECTION.

a.

Figure 2-23. Part A. Write Chord Scales for Progressions
Figure 2-23. Part B. Write Chord Scales for Progressions
Figure 2-23. Part C. Write Chord Scales for Progressions
Figure 2-23. Part D. Write Chord Scales for Progressions
e.

Figure 2-23. Part E. Write Chord Scales for Progressions
LESSON 3
RELATING CHORD SCALES TO TRIADS, EXTENDED CHORDS, AND ALTERED CHORDS

INTRODUCTION

LESSON DESCRIPTION:
In this lesson, you will learn to identify and write chord scales that correspond to triads, extended chords, and altered chords.

TERMINAL LEARNING OBJECTIVE:
ACTION: You will:
1. Identify chord scales that correspond to triads, extended chords, and altered chords, and
2. Write chords scales that correspond to triads, extended chords, and altered chords.

CONDITION: Given the information in this lesson.

STANDARD: IAW the information in this lesson.

REFERENCES: The material contained in this lesson was derived from the following publications: TC 12-41, Basic Music, and TC 12-42, Harmony.

This lesson shows you what chord scales to use when chords are triads or are extended to the ninth, eleventh, and thirteenth degrees. It will also show the chord scales to use for altered chords. These are not the only chord scales that are possible to use with these chords. They are, however, the chord scales that are most closely related to the notes of their corresponding chords.

1. Chord Scales for Major Scales.
a. **The Major Scale.** Use the Major scale as the chord scale for Major triads, 6/9 chords, and Maj9 chords when they have tonic (I) function (Figure 3-1).

![Figure 3-1. Major Scale](image)

b. **Lydian Mode.**

(1) **Non-Tonic Major Chords.** Use the Lydian mode as the chord scale for Major triads, 6/9 chords, and Maj9 chords when they have subdominant (IV) or any non-tonic function (Figure 3-2).

![Figure 3-2. Lydian Mode](image)

**NOTE:** You can use the lydian mode in place of the Major scale and the Major scale in place of the lydian mode for the chords listed above.

(2) **Major Chords with Raised Elevenths.** Use the lydian mode as the chord scale for all Major chords with raised elevenths or lowered fifths (Figure 3-3).

![Figure 3-3. Lydian Mode](image)

c. **Relative Melodic Minor Scale (Ascending).** Use the relative melodic minor scale (ascending) as the chord scale for all Major chords with raised fifths (Figure 3-4).

![Figure 3-4. Relative Melodic Minor Scale](image)
2. **Chord Scales for Minor Chords.**

   a. **Melodic Minor Scale (Ascending).** Use the melodic minor scale (ascending) as the chord scale for the natural extensions of min6 and min (Maj7) chords (Figure 3-5).

   b. **Dorian Mode.** Use the dorian mode as the chord scale for min9, min11, and min13 chords that are in the supertonic (ii) function (Figure 3-6).

   c. **Aeolian Mode.** Use the aeolian mode as the chord scale for min9 and min11 chords that have submediant (vi) or mediant (iii) function in a chord progression (Figure 3-7).

**NOTE:** *Use the dorian mode as the chord scale for minor triads and for min9, min11, and min13 chords when the harmonic function is unknown.*
3. **Dominant Chord Scales.**

   a. **Mixolydian Mode.** Use the mixolydian mode as the chord scale for dominant 9, natural 11, natural 13, and sus4 chords (Figure 3-8).

   **NOTE:** The mixolydian mode should be used for all dominant seventh (sus4) chords with natural extensions.

   b. **Lydian Seventh Scale.** Use the lydian seventh scale as the scale for dominant chords with raised elevenths (Figure 3-9).

   c. **“9” Diminished Scale.** Use the “9” diminished scale as the chord scale for dominant chords with natural extensions (Figure 3-10).

---

**Figure 3-7. Aeolian Mode**

![A Aeolian Mode](image1)

![E Aeolian Mode](image2)

**Figure 3-8. Mixolydian Mode**

![G Mixolydian Mode](image3)

**Figure 3-9. Lydian Seventh Scale**

![G Lydian Seventh Scale](image4)

**Figure 3-10. “9” Diminished Scale**

![G9(#11) and G13(#11)](image5)
chords with lowered ninths, raised ninths, and natural thirteenths (Figure 3-10).

![Figure 3-10. “.9” Diminished Scale](image)

Figure 3-10. “.9” Diminished Scale

d. **Altered Dominant Scale.** Use the altered dominant scale as the chord scale for dominant chords with lowered ninths, raised ninths, raised elevenths, and lowered thirteenths (Figure 3-11).

![Figure 3-11. Altered Dominant Scale](image)

Figure 3-11. Altered Dominant Scale

4. **Augmented Chord Scales.**

a. **Whole Tone Scale.** Use the whole tone scale as the chord scale for Aug, Aug9, and Aug9 (#11) chords (Figure 3-12).

![Figure 3-12. Whole Tone Scale and Augmented Chords](image)
b. **Altered Dominant Scale.** Use the altered dominant scale as the chord scale for augmented chords with lowered ninths, raised ninths, and raised elevenths (Figure 3-13).

![Figure 3-13. Altered Dominant Scale](image)

**SELF REVIEW EXERCISE 1.**
CLICK HERE TO PROCEED TO THIS EXERCISE.
CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.

**SELF REVIEW EXERCISE 2.**
CLICK HERE TO PROCEED TO THIS EXERCISE.
CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.

CLICK HERE TO PROCEED TO THE PRACTICAL EXERCISE.
CLICK HERE TO PROCEED TO THE PRACTICAL EXERCISE ANSWERS.

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LESSON 3
PRACTICAL EXERCISE

The following items will test your understanding of the material covered in this lesson. There is only one correct answer for each item. When you have completed the exercise, check your answers with the answer key. If you answer any item incorrectly, review that part of the lesson that contains the portion involved.

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
CLICK HERE TO RETURN TO THE TABLE OF CONTENTS.

Figure 1. Questions 1 and 2

1. Which of the following chord scales should be used for the first chord in Figure 1?

   A. E Major scale
   B. E lydian mode
   C. E melodic minor scale
   D. E whole tone scale

2. Which of the following chord scales should be used for the last chord in Figure 1?

   A. B altered dominant scale
   B. B diminished scale
3. The mixolydian mode is the chord scale to use when the dominant seventh chord is extended to the natural eleventh and thirteenth.

A. True  
B. False

![Figure 2. Question 4](image)

4. Which chord scale should be used for the second chord in Figure 2?

A. Mixolydian mode  
B. Lydian seventh scale  
C. “9” diminished scale  
D. Altered dominant scale

![Figure 3. Question 5](image)

5. Which of the following chord scales should be used for the first chord in Figure 3?

A. B melodic minor scale  
B. D altered dominant scale
C. D lydian mode
D. D melodic minor scale

6. Which of the following chord scales should be used for augmented chords with lowered ninths, raised ninths, and raised elevenths?
   A. Whole tone scale
   B. Altered dominant scale
   C. Both A and B are correct.
   D. Neither A nor B are correct.

7. You should use the D melodic minor scale as the chord scale for both FMaj9(♯5) and Dmin6/9.
   A. True
   B. False

8. You should use the same chord scale for an F♯min9 as you do for an F♯min11(Maj7).
   A. True
   B. False

9. Which of the following chord scales should be used for the first chord in Figure 4?
   A. C♯ dorian mode
   B. C♯ aeolian mode
   C. C♯ phrygian mode
   D. C♯ melodic minor scale

Figure 4. Questions 9 thru 11
10. Which of the following chord scales should be used for the second chord in Figure 4?

A. F# dorian mode  
B. F# aeolian mode  
C. F# phrygian mode  
D. F# melodic minor scale

11. Which of the following chord scales should be used for the third chord in Figure 4?

A. B dorian mode  
B. B aeolian mode  
C. B phrygian mode  
D. B melodic minor scale

12. The Major scale should be used as the chord scale for all Major triads, regardless of their harmonic function.

A. True  
B. False

Figure 5. Questions 13 thru 17
13. The chord scale the should be used for the D\text{maj9}^{(#11)} in the first measure of Figure 5 is the ________.
   A. B\text{ melodic minor scale}
   B. D\text{ Major scale}
   C. D\text{ lydian mode}
   D. D\text{ lydian seventh scale}

14. The chords in the first and last measures of Figure 5 could use the same chord scale.
   A. True
   B. False

15. The chord scale that should be used for the A\text{7}^{(#9, 9)} in the second measure of Figure 5 is the ________.
   A. A\text{ altered dominant scale}
   B. A\text{ lydian seventh scale}
   C. A\text{ whole tone scale}
   D. A\text{ “9” diminished scale}

16. The dominant seventh chords in the second and fourth measures of Figure 5 should use the same chord scale.
   A. True
   B. False

17. The chord scale that should be used for the B\text{7}^{(13, 9)} in the third measure of Figure 5 is the ________.
   A. B\text{ altered dominant scale}
   B. B\text{ lydian seventh scale}
   C. B\text{ “9” diminished scale}
18. The B♭ lydian mode could be used for the first and last chord in Figure 6.

A. True
B. False

19. You should use the B♭ altered dominant scale as the chord scale for B♭7(13, 9) and for B♭7 (°9, 9).

A. True
B. False

20. The lydian mode should be used as the chord scale for all Major chords with raised elevenths or lowered fifths.

A. True
B. False
## LESSON 3
### PRACTICAL EXERCISE
#### ANSWER KEY AND FEEDBACK

**CLICK HERE TO RETURN TO THE TABLE OF CONTENTS.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Correct Answer and Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0000000000B E lydian mode (Paragraph 1b(2))</td>
</tr>
<tr>
<td>2.</td>
<td>C B lydian seventh scale (Paragraph 3b)</td>
</tr>
<tr>
<td>3.</td>
<td>A True (Paragraph 3a)</td>
</tr>
<tr>
<td>4.</td>
<td>A Mixolydian mode (Paragraph 3a)</td>
</tr>
<tr>
<td>5.</td>
<td>A B melodic minor scale (Paragraph 1c)</td>
</tr>
<tr>
<td>6.</td>
<td>B Altered dominant scale (Paragraph 4b)</td>
</tr>
<tr>
<td>7.</td>
<td>A True (Paragraphs 1c &amp; 2a)</td>
</tr>
<tr>
<td>8.</td>
<td>B False (Paragraphs 2a, 2b, &amp; 2c)</td>
</tr>
<tr>
<td>9.</td>
<td>B C# aeolian mode (Paragraph 2c)</td>
</tr>
<tr>
<td>10.</td>
<td>B F# aeolian mode (Paragraph 2c)</td>
</tr>
</tbody>
</table>

**Item** **Correct Answer and Feedback**
11. A B dorian mode  
   (Paragraph 2b)

12. B False  
   (Paragraphs 1a & 1b)

13. C D Lydian mode.  
   (Paragraph 1b(2))

14. A True  
   (Paragraphs 1b(1) NOTE & 1b(2))

15. D A “9” diminished scale.  
   (Paragraph 3c)

16. B False  
   (Paragraphs 3c & 3d)

17. A B Altered dominant scale.  
   (Paragraph 3d)

18. A True  
   (Paragraph 1b(1) NOTE)

19. B False  
   (Paragraphs 3c & 3d)

20. A True  
   (Paragraph 1b(2))
**SELF REVIEW EXERCISE 1.** Write the chord and chord scale that corresponds to the given chord symbol. The first one has been done for you (Figure 3-14).

[CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.]

[CLICK HERE TO PROCEED TO THE NEXT SECTION.]

<table>
<thead>
<tr>
<th>CHORD</th>
<th>FUNCTION</th>
<th>CHORD SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. D9</td>
<td>V</td>
<td>[D Mixolydian]</td>
</tr>
<tr>
<td>b. GMaj13(&quot;11&quot;)</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>c. B♭Maj9(&quot;5&quot;)</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>d. Emin11(Maj7)</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>e. Dmin9</td>
<td>iii</td>
<td></td>
</tr>
<tr>
<td>f. F7(&quot;9&quot;)</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>g. Bmin13</td>
<td>ii</td>
<td></td>
</tr>
<tr>
<td>h. E6</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>i. FAug9(&quot;11&quot;)</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>j. A♭9(&quot;11&quot;)</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>k. CAug7(&quot;9&quot;)</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>CHORD</td>
<td>FUNCTION</td>
<td>CHORD SCALE</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>l. F♯min9</td>
<td>iii</td>
<td></td>
</tr>
<tr>
<td>m. E7(♯13)</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>n. D7(♯9)</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>o. B7sus4</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>p. A7(♯11)</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>q. Amin9</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>r. AMaj7(♯5)</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>s. A♭11</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>t. EMaj13(♭11)</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>u. C♯min9(Maj7)</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td>v. C7(♭9)</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>w. D7(♭9)</td>
<td>v</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3-14. Write Chords and Chord Scales
# LESSON 3
## SELF REVIEW EXERCISE ANSWERS

### SELF REVIEW EXERCISE 1.  (Figure 3-14)

**CLICK HERE TO PROCEED TO THE NEXT SECTION.**

<table>
<thead>
<tr>
<th>CHORD</th>
<th>FUNCTION</th>
<th>CHORD SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. D9</td>
<td>V</td>
<td>D Mixolydian</td>
</tr>
<tr>
<td>b. GMaj13(♯11)</td>
<td>I</td>
<td>G Lydian</td>
</tr>
<tr>
<td>c. B♭Maj9(♯5)</td>
<td>I</td>
<td>G melodic minor</td>
</tr>
<tr>
<td>d. Emin11(Maj7)</td>
<td>i</td>
<td>E melodic minor</td>
</tr>
<tr>
<td>e. Dmin9</td>
<td>iii</td>
<td>D aeolian</td>
</tr>
<tr>
<td>f. F7(#9)</td>
<td>V</td>
<td>F &quot;♯9&quot; diminished</td>
</tr>
<tr>
<td>g. Bmin13</td>
<td>ii</td>
<td>B dorian</td>
</tr>
<tr>
<td>h. E♭</td>
<td>iv</td>
<td>E Lydian</td>
</tr>
<tr>
<td>i. FAug9(♯11)</td>
<td>V</td>
<td>F whole tone</td>
</tr>
<tr>
<td>CHORD</td>
<td>FUNCTION</td>
<td>CHORD SCALE</td>
</tr>
<tr>
<td>------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>j. A₉(#₁₁)</td>
<td>V</td>
<td>C altered dominant</td>
</tr>
<tr>
<td>k. CAug₇(♯₉)</td>
<td>V</td>
<td>F♯ aeolian</td>
</tr>
<tr>
<td>l. F♯₉min9</td>
<td>iii</td>
<td>Eb altered dominant</td>
</tr>
<tr>
<td>m. E₇(♯₃)</td>
<td>V</td>
<td>D♭ “♭₉” diminished</td>
</tr>
<tr>
<td>n. D₇(♭₃)</td>
<td>V</td>
<td>B mixolydian</td>
</tr>
<tr>
<td>o. B₇sus₄</td>
<td>V</td>
<td>A altered dominant</td>
</tr>
<tr>
<td>p. A₇(♯₃)</td>
<td>V</td>
<td>A melodic minor</td>
</tr>
<tr>
<td>q. A₉min₆</td>
<td>i</td>
<td>F♯ melodic minor</td>
</tr>
<tr>
<td>r. AMaj₇(♭₅)</td>
<td>I</td>
<td>A♭ mixolydian</td>
</tr>
<tr>
<td>s. A₁₁</td>
<td>V</td>
<td>E lydian</td>
</tr>
<tr>
<td>t. EMaj₁₃(#₁₁)</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>CHORD</td>
<td>FUNCTION</td>
<td>CHORD SCALE</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>---------------</td>
</tr>
<tr>
<td>u. C°min9 (Maj7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. C7(#11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>w. D7(#9)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3-14. Write Chords and Chord Scales
SELF REVIEW EXERCISE 2. Write the chord scale for the following excerpts (Figure 3-15. Parts A, B, C, and D).

CLICK HERE FOR THE ANSWERS TO THIS EXERCISE.
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a.

Figure 3-15. Part A. Write Chord Scales for Excerpts
b.

Figure 3-15. Part B. Write Chord Scales for Excerpts

\[ \text{F\# min7(5)} \quad \text{B Aug7} \]

\[ \text{E min7(5)} \quad \text{A9(\#11)} \]

\[ \text{D min7(5)} \quad \text{G Aug7} \]

\[ \text{D min11} \quad \text{Bb7} \quad \text{B7} \]

Figure 3-15. Part C. Write Chord Scales for Excerpts

\[ \text{D13\text{sus4}} \quad \text{D13(\#11)} \]

\[ \text{D} \quad \text{DMaj9} \quad \text{D9sus4} \]

\[ \text{(IV)} \quad \text{IV) \text{ (IV) \text{ (I)}} \]

\[ \text{Bb min7} \quad \text{Ab min7} \quad \text{GMaj9} \]

(1)
Figure 3-15. Part D. Write Chord Scales for Excerpts
SELF REVIEW EXERCISE 2. (Figure 3-15. Parts A, B, C, and D)

CLICK HERE TO PROCEED TO THE TABLE OF CONTENTS.

a.

Figure 3-15. Part A. Write Chord Scales for Excerpts
b. Figure 3-15. Part B. Write Chord Scales for Excerpts

\[
\begin{array}{c}
F^{\#} \text{min7}(\flat 5) & B \text{Aug7} \\
E \text{min7}(\flat 5) & A^{\#}(\flat 11) \\
D \text{min7}(\flat 5) & G \text{Aug7} \\
D \text{min11} & B^{\flat 7} & B^{7}
\end{array}
\]

Figure 3-15. Part C. Write Chord Scales for Excerpts

\[
\begin{array}{c}
D^{13}_{\text{sus}4} & D^{13}(\#11) \\
D^{9} & \text{DMaj9} & D^{9}_{\text{aus}4} \\
B^{\flat} \text{min7} & A^{\flat} \text{min7} & \text{GMaj9}
\end{array}
\]

(IV) (IV) (I)
Figure 3-15. Part D. Write Chord Scales for Excerpts